AMENDMENT TO THE CLAIMS:

The following claim set replaces all prior versions, and listings, of claims in the application:

1. (currently amended) A process for producing polymeric microspheres comprising the steps of:
   (a) generating an aerosol of initiated liquid monomeric droplets; and
   (b) allowing the aerosol of initiated liquid monomeric droplets to gravitationally fall through an inert gas-filled reaction zone under polymerization reaction conditions of a temperature in the reaction zone between about 30^0C to about 120^0C and for a residence time in the reaction zone sufficient to substantially polymerize the monomeric droplets and form polymeric microspheres; and
   (c) collecting the polymeric microspheres.

2. (original) The process of claim 1, wherein step (a) includes passing the initiated liquid monomeric droplets through a nebulizer and allowing the nebulizer to generate the droplet aerosol.

3. (original) The process of claim 2, wherein step (a) includes positioning the nebulizer near an upper end of a reactor tube which defines the reaction zone, and wherein step (b) includes allowing the aerosol of droplets to fall by gravity through the reaction zone to a lower end of the reactor tube.

4. (original) The process of claim 3, wherein step (c) includes collecting the polymeric microspheres at the lower end of the reactor tube.

5. (original) The process of claim 1, wherein step (a) includes positioning the nebulizer near a lower end of a reactor tube which defines the reaction zone so as to create an upwardly directed plume of droplets , and wherein step (b)

includes allowing the droplets in the upwardly directed plume to reverse direction under the influence of gravitational force so that the droplets thereafter fall by gravity through the reaction zone.

6. (original) The process of any one of claims 1-5, which comprises introducing heated air into the reaction zone.

7. (original) The process of any one of claims 1-5, which comprises positioning a least one ultraviolet (UV) light adjacent the reaction zone.

8. (original) The process of claim 1, wherein step (a) comprises supplying to a nebulizer an initiated monomeric liquid comprised of a mixture of a monomer and a polymerization initiator for the monomer.

9. (original) The process of claim 8, wherein the monomer is at least one selected from the group consisting of acrylic acid, acrylamide, poly(ethylene glycol) macromonomers, (meth)acrylic esters, (meth)acrylamides, epoxide group-containing monomers, vinylaromatic hydrocarbons and monomers having at least one at least one hydroxyl, thio, amino, alkoxymethylamino, carbamate, allophanate or imino group per molecule.

10. (original) The process of claim 9, wherein the initiator includes a peroxide or azo initiator.

11. – 20. (Canceled)

21. (new) The process of claim 9, wherein step (a) is practiced so as to achieve a residence time in the reaction zone of between about 30 seconds to about 1800 seconds.